

Applicant: Wholey, et al. Serial No.: 09/627,252 Filed: July 28, 2000 Page: 2 of 17

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

- 1. (Currently Amended): A method for executing a graph representing an executable computer application, the graph having vertices representing components and links between components indicating flows of data between such components, the graph further having components with parameters, including:
- (a) <u>programmatically</u> retrieving a runtime parameter for the graph at runtime execution of the graph, the runtime parameter having a value defined as determinable at runtime execution of the graph;
- (b) determining whether the value for the runtime parameter is to be provided by user input or is to be externally supplied programmatically;
- (c) displaying a prompt to a user for receiving user input for every runtime parameter so determined to be provided by user input;
- (d) retrieving any externally supplied value for every runtime parameter determined to be externally supplied programmatically
- (e) determining a first final parameter value based on one of the user response input to such prompt or such externally supplied value or a default value; and



Applicant: Wholey, et al. Serial No.: 09/627,252 Filed: July 28, 2000

Page : 9 3 of 17

(e \underline{f}) executing the graph using the first final parameter value as the value for the runtime parameter.

2. (Canceled)

- 3. (Original): The method of claim 1, further including providing an interface which permits designating a parameter of a graph component as a runtime parameter.
- 4. (Currently amended): The method of claim 1, wherein determining the first final parameter value includes evaluating an expression.
- 5. (Original): The method of claim 4, wherein the expression computes metadata.

Claims 6-7 (Canceled)

- 8. (Currently amended): The method of claim 2 1, wherein a prompt for receiving user input is conditional, and displaying the prompt depends upon evaluation of user input to a prior displayed prompt.
- 9. (Currently Amended): A method for modifying a graph at runtime execution of the graph, the graph having vertices representing components with parameters and links between components indicating flows of data between such components, the method including:

Applicant: Wholey, et al. Serial No.: 09/627,252 Filed: July 28, 2000

Page : 4 of 17

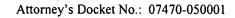
- (a) determining at runtime execution of the graph whether any component of the <u>an associated</u> graph is defined as being a conditional component having a <u>an associated</u> condition and a condition-interpretation;
- (b) evaluating the <u>associated</u> condition for every such conditional component; and
- (c) modifying the graph at runtime execution of the graph in accordance with such evaluation and the corresponding associated condition-interpretation of at least one such conditional component by removing such conditional component and all connected flows to such conditional component from the graph before execution of the graph, based on a first evaluation of the associated condition and the corresponding associated condition-interpretation for such conditional component; and
 - (d) executing the modified graph.

10. (Canceled)

- 11. (Currently Amended): The method of claim 10 9, further including removing each component and flows connected to such components that depend on the presence of the removed conditional component.
- 12. (Currently Amended): The method of claim 9, wherein modifying the graph includes A method for modifying a graph at runtime execution of the graph, including:

determining at runtime execution of the graph whether any component of the graph is defined as being a conditional





Applicant: Wholey, et al. Serial No.: 09/627,252 : July 28, 2000 : 5 of 17 Filed

Page

component having a an associated condition and an associated condition-interpretation;

evaluating the associated condition for every such conditional component;

modifying the graph at runtime execution of the graph in accordance with such evaluation and the corresponding associated condition-interpretation of at least one such conditional component by replacing the such conditional component with a flow before execution of the graph based on a second evaluation of the associated condition and the corresponding conditioninterpretation for such conditional component; and executing the modified graph.

- 13. (Currently amended): The method of claims 9 or 12, further including providing an interface which permits designating a condition and a condition-interpretation for a graph component.
- 14. (Currently Amended): A system for executing a graph representing an executable computer application, the graph having vertices representing components and links between components indicating flows of data between such components, the graph further having components with parameters, including:
- means for programmatically retrieving a runtime parameter for the graph at runtime execution of the graph, the runtime parameter having a value defined as determinable at runtime execution of the graph;



Applicant: Wholey, et al. Serial No.: 09/627,252 Filed: July 28, 2000

Page : 6 of 17

- (b) means for determining whether the value for the runtime parameter is to be provided by user input or is to be externally supplied programmatically;
- (c) means for displaying a prompt to a user for receiving user input for every runtime parameter so determined to be provided by user input;
- (d) means for retrieving any externally supplied value for every runtime parameter determined to be externally supplied programmatically;
- (e) means for determining a first final parameter value based on one of the user response input to such prompt or such externally supplied value or a default value; and
- (e \underline{f}) means for executing the graph using the $\frac{f}{f}$ final parameter value as the value for the runtime parameter.

15. (Canceled)

- 16. (Original): The system of claim 14, further including an interface which permits designating a parameter of a graph component as a runtime parameter.
- 17. (Currently Amended): The system of claim 14, wherein the means for determining the first final parameter value includes means for evaluating an expression.
- 18. (Original): The system of claim 17, wherein the expression computes metadata.

Claims 19 and 20 (Canceled)



Applicant: Wholey, et al. Serial No.: 09/627,252 Filed: July 28, 2000

Page : 7 of 17

- 21. (Currently Amended): The system of claim 15 14, wherein a prompt for receiving user input is conditional, and displaying the prompt depends upon evaluation of user input to a prior displayed prompt.
- 22. (Currently Amended): A system for modifying a graph at runtime execution of the graph, the graph having vertices representing components with parameters and links between components indicating flows of data between such components, the system including:
- (a) means for determining at runtime execution of the graph whether any component of the graph is defined as being a an associated conditional component having a an associated condition and a condition-interpretation;
- (b) means for evaluating the <u>associated</u> condition for every such conditional component; and
- (c) means for modifying the graph at runtime execution of the graph in accordance with such evaluation and the corresponding associated condition-interpretation of at least one such conditional component by removing such conditional component and all connected flows to such conditional component from the graph before execution of the graph, based on a first evaluation of the associated condition and the corresponding associated condition-interpretation for such conditional component; and
 - (d) means for executing the modified graph.
 - 23. (Canceled)



Applicant : Wholey, et al. Serial No. : 09/627,252 Filed : July 28, 2000

Page : 8 of 17

24. (Currently Amended): The system of claim 23 22, further including means for removing each component and flows connected to such components that depend on the presence of the <u>removed</u> conditional component.

25. (Currently Amended): The system of claim 22, wherein the means for modifying the graph includes means for A system for modifying a graph at runtime execution of the graph, including:

means for determining at runtime execution of the graph whether any component of the graph is defined as being a conditional component having a an associated condition and an associated condition-interpretation;

means for evaluating the associated condition for every
such conditional component;

means for modifying the graph at runtime execution of the graph in accordance with such evaluation and the corresponding associated condition-interpretation of at least one such conditional component by replacing the such conditional component with a flow before execution of the graph based on a second evaluation of the associated condition and the corresponding associated condition-interpretation for such conditional component; and

means for executing the modified graph.

26. (Currently Amended): The system of claims 22 or 25, further including an interface which permits designating a condition and a condition-interpretation for a graph component.



Applicant: Wholey, et al. Serial No.: 09/627,252 Filed: July 28, 2000

Page : 9 of 17

- 27. (Currently Amended): A computer program, stored on a computer-readable medium, for executing a graph representing an executable computer application, the graph having vertices representing components and links between components indicating flows of data between such components, the graph further having components with parameters, the computer program comprising instructions for causing a computer to:
- (a) <u>programmatically</u> retrieve a runtime parameter for the graph at runtime execution of the graph, the runtime parameter having a value defined as determinable at runtime execution of the graph;
- (b) determine whether the value for the runtime parameter is to be provided by user input or is to be externally supplied programmatically;
- (c) display a prompt to a user for receiving user input for every runtime parameter so determined to be provided by user input;
- (d) retrieve any externally supplied value for every runtime parameter determined to be externally supplied programmatically;
- (e) determine a first final parameter value based on one of the user response input to such prompt or such externally supplied value or a default value; and
- (e) execute the graph using the first final parameter value as the value for the runtime parameter.

28. (Canceled)

Applicant : Wholey, et al. Serial No. : 09/627,252 Filed : July 28, 2000 Page : 10 of 17

29. (Original): The computer program of claim 27, further including instructions for causing the computer to provide an interface which permits designating a parameter of a graph component as a runtime parameter.

- 30. (Currently amended): The computer program of claim 27, wherein the instructions for causing the computer to determine the first final parameter value include instructions for causing the computer to evaluating an expression.
- 31. (Original): The computer program of claim 30, wherein the expression computes metadata.

Claims 32-33 (Canceled)

- 34. (Currently amended): The computer program of claim 28 27, wherein a prompt for receiving user input is conditional, and displaying the prompt depends upon evaluation of user input to a prior displayed prompt.
- 35. (Currently Amended): A computer program, stored on a computer-readable medium, for modifying a graph at runtime execution of the graph, the graph having vertices representing components with parameters and links between components indicating flows of data between such components, the computer program comprising instructions for causing a computer to:
- (a) determine at runtime execution of the graph whether any component of the graph is defined as being a conditional



Applicant : Wholey, et al.
Serial No. : 09/627,252
Filed : July 28, 2000
Page : 11 of 17

component having a <u>an associated</u> condition and a <u>an associated</u> condition-interpretation;

- (b) evaluate the <u>associated</u> condition for every such conditional component; and
- (c) modify the graph at runtime execution of the graph in accordance with such evaluation and the <u>associated</u> corresponding condition-interpretation of <u>at least one</u> such conditional component <u>by removing such conditional component and all</u> connected flows to such conditional component from the graph before execution of the graph, based on a first evaluation of the associated condition and the corresponding associated condition-interpretation for such conditional component; and
 - (d) execute the modified graph.

36. (Canceled)

- 37. (Currently Amended): The computer program of claim 36 35, further including instructions for causing the computer to remove each component and flows connected to such components that depend on the presence of the conditional component.
- 38. (Currently Amended): The computer program of claim 35, wherein the instructions for causing the computer to modify the graph include instructions for causing the computer to A computer program, stored on a computer-readable medium, for modifying a graph at runtime execution of the graph, the computer program comprising instructions for causing a computer to:



Applicant : Wholey, et al. Serial No. : 09/627,252 Filed : July 28, 2000 Page : 12 of 17

determine at runtime execution of the graph whether any component of the graph is defined as being a conditional component having a an associated condition and an associated condition-interpretation;

evaluate the associated condition for every such
conditional component;

modify the graph at runtime execution of the graph in accordance with such evaluation and the corresponding associated condition-interpretation of at least one such conditional component by replacing replace the conditional component with a flow before execution of the graph based on a second evaluation of the condition and the corresponding condition-interpretation for such conditional component; and

execute the modified graph.

39. (Currently Amended): The computer program of claims 35 or 38, further including instructions for causing the computer to provide an interface which permits designating a condition and a condition-interpretation for a graph component.

